

WHAT IS CLAIMED IS:

- 1                    1.      A timepiece comprising:  
2                    a liquid crystal display (LCD);  
3                    a battery powered circuit for driving the LCD and determining a time;  
4      and  
5                    one or more alternating current (AC) powered lights configured as a  
6      back light to the LCD,  
7                    wherein the one or more AC powered lights function when plugged  
8      into an AC power source.
- 1                    2.      The timepiece of claim 1 wherein the timepiece does not  
2      include a transformer or a rectifier circuit.
- 1                    3.      The timepiece of claim 1 wherein the timepiece is a clock.
- 1                    4.      The timepiece of claim 2 wherein the clock is a digital clock.
- 1                    5.      The timepiece of claim 1 wherein the one or more AC powered  
2      lights comprise one or more neon lights.
- 1                    6.      The timepiece of claim 1 wherein the one or more AC powered  
2      lights function only when plugged into the AC power source.
- 1                    7.      The timepiece of claim 1 wherein the battery power is supplied  
2      by one or more AA batteries.
- 1                    8.      The timepiece of claim 1 further comprising an alarm that  
2      progressively increases in volume as the alarm sounds.
- 1                    9.      The timepiece of claim 8 further comprising a snooze button  
2      that delays the alarm for a period of time.

1                   10.     The timepiece of claim 1 wherein the timepiece continues to  
2 determine the time while the battery is at least partially charged and remains in  
3 contact with the battery powered circuit.

1                   11.     A digital alarm clock comprising:  
2                   a liquid crystal display (LCD);  
3                   a battery;  
4                   a battery powered digital clock circuit for driving the LCD and  
5 determining a time; and  
6                   one or more alternating current (AC) powered neon lights configured  
7 as a back light to the LCD,  
8                   wherein the one or more AC powered neon lights function only when  
9 plugged into an AC power source and the digital clock circuit functions only when  
10 connected to the battery.

1                   12.     The digital alarm clock of claim 11 wherein the digital alarm  
2 clock does not include a transformer or a rectifier circuit.

1                   13.     A timepiece comprising:  
2                   a housing;  
3                   a liquid crystal display (LCD);  
4                   an alternating current (AC) powered back light to the LCD;  
5                   a reflector located between the LCD and the back light;  
6                   a battery; and  
7                   a battery powered printed circuit board configured to drive the LCD  
8 and determine a time.

1                   14.     The timepiece of claim 13 wherein the timepiece is a digital  
2 alarm clock.

1                   15.     The timepiece of claim 13 wherein the reflector comprises  
2 flame retardant polycarbonate (PC) and the housing comprises flame retardant  
3 acrylonitrile-butadiene-styrene (ABS).

1                    16.    The timepiece of claim 13 wherein the timepiece does not  
2    include a transformer or a rectifier circuit.

1                    17.    The timepiece of claim 13 wherein the AC powered back light  
2    comprises one or more neon lights powered by a conventional 120V 60Hz or 220V  
3    50Hz power source.

1                    18.    The timepiece of claim 17 wherein each neon light is connected  
2    in parallel with all of the one or more neon lights and each neon light is coupled in  
3    series with a resistance between 68 and 82 kilo-Ohms.

1                    19.    The timepiece of claim 13 further comprising a plurality of  
2    switches connected to the battery powered printed circuit board and functioning to  
3    set the date, time, and alarm configuration of the timepiece.

1                    20.    The timepiece of claim 19 further comprising an alarm  
2    transducer and one or more capacitors connected to the battery powered circuit  
3    board.